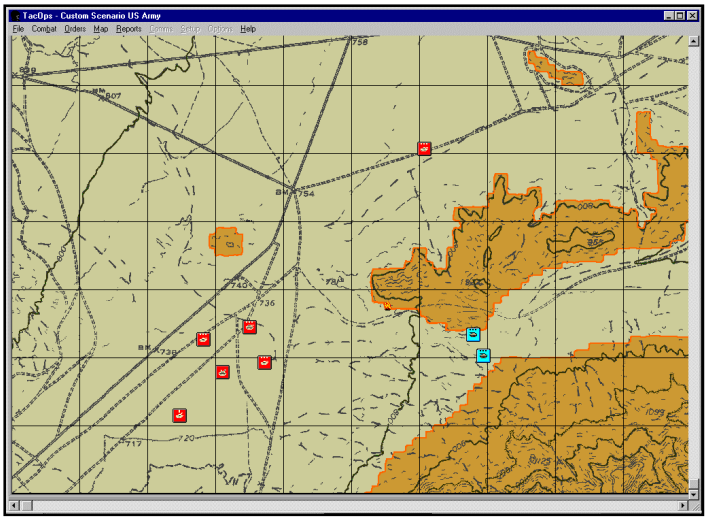
Fighting a Hundred Battles:

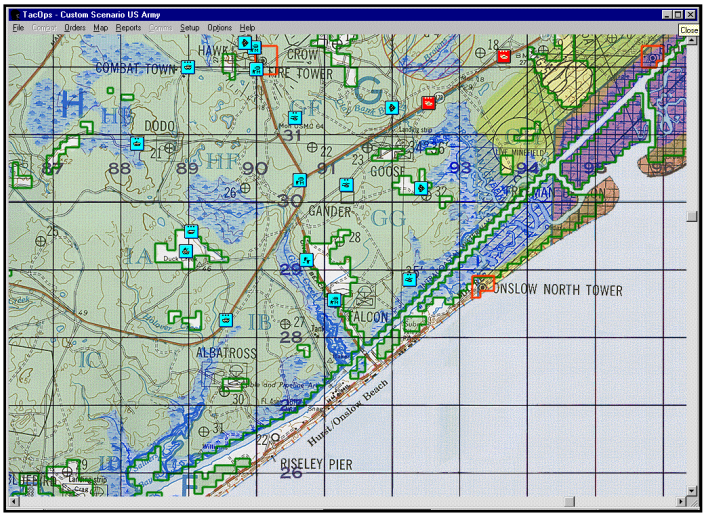
Using *TacOps* to Produce Experienced Captains for the Mounted Force

Major Wayne Cherry and Major Joseph McLamb

At 0700, the commander of the forward security element crosses Bicycle Lake, heading north toward his battalion's objective of Granite Pass. The situation is extremely unclear; he has no report of enemy contact. Shaking himself to overcome the fatigue of continuous operations, he looks at his digital map and sees that the CRP is moving north of the western entrance to Hidden Valley. He directs the remainder of the FSE to follow. The battalion command net crackles, and the company commander receives a FRAGO: seize Hill 876. He forwards the order to the CRP, mentally wondering if the enemy is already on the objective. Suddenly, a flank platoon reports contact to the east. An icon showing two enemy HMMWVs appears on the commander's digital map at the western end of Hidden Valley. The platoon in contact is engaging with ATGMs, but the commander's mind races to far more important conclusions. If the enemy has scouts in Hidden Valley... Almost frantically, the commander reorients his force to the east, but already the digital map shows two enemy tank platoons emerging from Hidden Valley, attacking into the FSE's open flank.

At 1300, the same commander looks at his digital map again. This time he sees that his friendly forces include a RSTA squadron recce troop, a platoon of MGSs, 6 OH-58D Kiowa Warriors, and four UAVs. As he mentally adjusts to this new task organization, he inspects the terrain on the map. The open spaces of the Mojave Desert have given way to the swampy lowlands of Camp Lejeune. As he tries to think through the effects of the change in terrain, the radio crackles: "FRAGO, enemy MIBN detected at AB123456, moving east..."



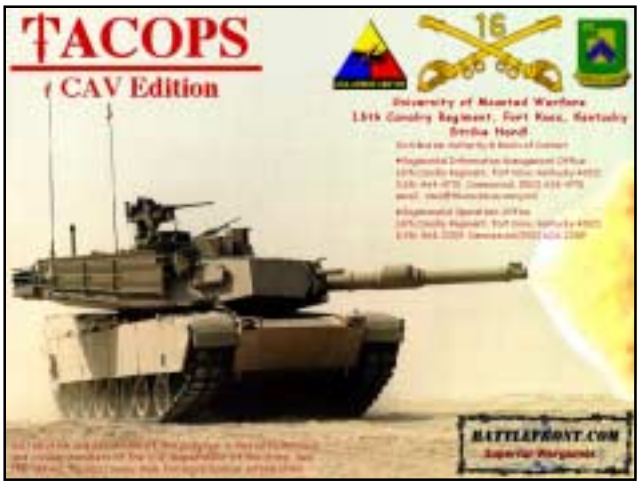


No, this poor commander is not trapped in the twilight zone or in a tactician's purgatory. In fact, both of these battles, and many others like them, occur within the walls of Skidgel Hall, home of the Armor Captains Course at Fort Knox, Kentucky. Using an off-the-shelf computer simulation and standard laptop computers, the course requires student officers to quickly adapt to a changing environment, assess the situation, make decisions quickly, and learn from the results.

Background

If you've ever given any thought to training captains, then you've probably concluded that the long pole in the tent is experience. While it is relatively easy to give a young captain all the information he needs to be successful, making him an experienced leader is much more difficult. It is so difficult, in fact, that we rely almost completely on "on-the-job training" to provide the necessary experience. In the vast majority of cases, when a young captain arrives at his first unit he has never had to put all his new knowledge to work in an environment marked by uncertainty and limited time. He is knowledgeable, but inexperienced; educated, but not confident.

Recently, the Armor Captains Course has taken a number of steps in an attempt to overcome this deficiency. Our goal is to place student officers into multiple tactical and leadership scenarios, in an environment of uncertainty, little time, and limited resources, and require the student to make decisions. If we force a student officer to do this once, we've made some progress. But if we can get him to do it one hundred times — each time with feedback within the scenario and from his small group instructor — against an enemy that is



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trying hard to win, then we are well on our way to providing experienced captains to the force. Constructive simulations allow us to put a student into a hundred battles at almost no cost.

Constructive simulations have long been a part of officer training. In the Captains Course, we use Janus and BBS for large-scale CPXs and for one-on-one adaptive decision-making exercises. But such simulations are resource-intensive, require extensive coordination, and are not easy to use. For that reason, we recently bought the site license for *TacOps*.

TacOps 3.0 is a constructive simulation of modern tactical combat that can run on a standard PC. It was designed by a retired Marine officer, MAJ I. L. Holdridge, and has been purchased as a training device by the United States Marine Corps, and the armies of Australia, New Zealand, and recently Canada. The University of Mounted Warfare version, called *TacOpsCav*, should be available to all Army units within the next few months.

The responses from both small group instructors and student officers have been very positive. *TacOps* is easy to use, can be loaded on any standard laptop computer, provides visual and audio feedback, and is frequently described by student officers as "fun." It has tremendous potential for training captains, and can easily be used to train officers and NCOs within units.

First, the Shortfalls

TacOps has a lot to offer the trainer, but it has three major shortfalls that you must understand and accept from the beginning.

First, it requires some knowledge of the computer commands to get the results that you want. Before you can effectively use the program as a training tool, you must first be proficient with the program yourself. The program comes with a built-in tutorial, as well as a 200+ page on-line manual, so all the necessary information is easy to get. By spending some time working with the program in advance, you shorten the amount of time spent inputting orders to the units. Before trying to use *TacOps* for unit training, start with the tutorial. Small group instructors at the Captains Course report that they achieved a reasonable level of proficiency in 4-8 hours.

The second major shortcoming is that the Blue order of battle doesn't exactly match any current U.S. unit. The reason is very simple — since the Army doesn't a have single organization for all of our units, the game designer used a hybrid organization. You will also find that certain pieces of equipment are missing (the AVLM, for example), but that this is fairly easy to work around. In fact, the whole order of battle issue is overcome very simply by designing your own scenarios.

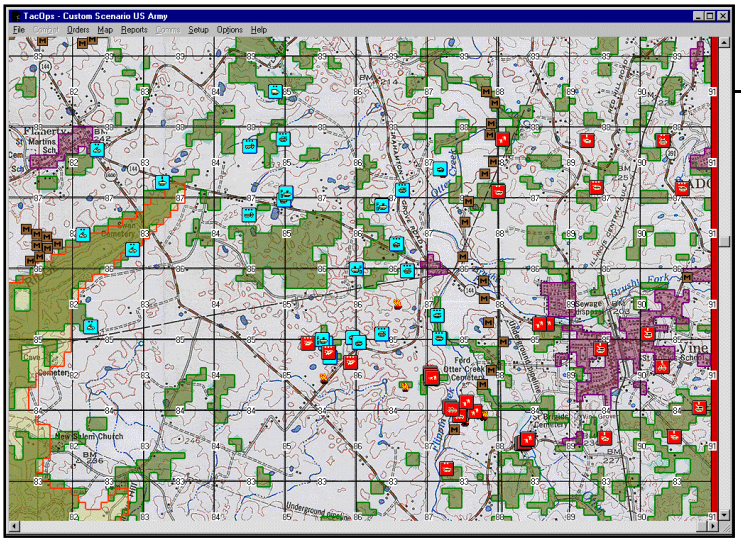
The third and most significant shortfall of *TacOps* is terrain modeling. The terrain in the program has only two levels — ground level and high terrain. The designer attempts to overcome this oversimplification by applying an abstraction to the problem. All terrain in *TacOps* is labeled by level of "roughness" – Rough0 through Rough4. These levels affect the mobility of the terrain, but have a much more important effect on line of sight. The level of roughness indicates the availability of intervisibility lines, small clumps of trees, etc., that would allow a stationary unit to find cover and concealment. A unit moving across Rough4 terrain, for example, might easily drop "out of sight" once it stopped moving. This abstraction isn't always exactly right for a given piece of terrain, but proves surprisingly accurate in most situations. Our experience so far has been that *TacOps* comes close enough to getting it right that you can conduct a TEWT in the morning on actual terrain, then fight that piece of terrain on *TacOps* in the afternoon with little loss of fidelity, as long as you accept the inability of the program to accurately reflect that individual IV line that you saw on the TEWT.

Making the Most of the Resource

At the Armor Captains Course, we use *TacOps* for a great number of activities, ranging from quick and simple to very complex. As you can see, some or most of these can easily be adapted to operational unit training.

1. Demonstrations of simple tactical concepts: Small group instructors use *TacOps* to reach the visual learners in the classroom. A common demonstration involves the use of intervisibility lines. The SGI places a single M2 platoon in a defensive posture, then launches an enemy tank company at it. The M2 platoon usually destroys three of four tanks before it is itself destroyed. In a second iteration, the SGI places the platoon at the crest of an IV line, with orders to fire, employ the vehicles' smoke grenades, and back off the IV line 200 meters. In this second scenario, the M2 platoon kills three or four tanks, then withdraws safely, usually without loss. This simple demonstration, which normally takes less than ten minutes, often clears up the mystery of intervisibility lines for the visual learners in the small group.

2. Tactical decision games: These short, relatively simple tactical problems have long been a part of leader training. *TacOps* allows SGIs to take the TDG one step further. In-



stead of debating student solutions, now small groups actually fight the battle. Learning is vastly enhanced because the student sees the results of his decisions played out on the battlefield, rather than simply discussed with his peers and instructor. Building a simple TDG on *TacOps* requires little overhead, and can usually be conducted and AAR'ed within an hour.

3. Force-on-force engagements: Using the local area network, two computers can fight the same *TacOps* battle simultaneously, one as the Blue force and one as the Red. Of all the uses of *TacOps*, this seems to generate the greatest level of student enthusiasm. Putting students in a head-to-head engagement verifies the old adage: Americans play to win! We've found that students try harder and learn more when we place them in direct tactical competition. These scenarios tend to be more involved, often taking two to three hours to conduct and AAR.

4. Rehearsals: Students have adapted *TacOps* to their own needs in several ways. One of the most successful has been in conducting rehearsals. Prior to conducting a company mission in CCTT, some small groups rehearse the operation in the classroom using *TacOps*. Across the board, the result has a company operation that was markedly better than those that did not include a *TacOps* rehearsal. At the task force level, small groups sometimes use *TacOps* as a tool during the course of action analysis to validate courses of action, access casualties as part of the wargame, etc. Several small groups have found *TacOps* to be particularly useful for planning and rehearsing reconnaissance and security operations. Finally, small groups often use *TacOps* to introduce additional enemy forces or courses of action into a scenario, exploring new options for friendly branch plans.

5. Command post exercise: This is definitely the most resource-intensive use of *TacOps* in the Captains Course. To exercise students as a task force staff, we place the company commanders in one location with the *TacOps* computer, and place the staff elsewhere with radios and TOC facilities. The staff receives only that information provided by the company commanders. Typically, we have both a Blue and a Red staff fighting each other. Again, student involvement and enthusiasm is remarkable. A standard task force exercise can run from four hours to a full day, and requires a TOC facility of some sort as well as radios. We often use handheld commercial radios for these exercises.

6. Tactics Award: Our course has for many years recognized the student officer who distinguished himself as a tactician over the length of the course. In the past, we selected this officer by means of a formal board. Appearing before a group of senior instructors, candidates for the award answered questions on doctrine and tactics, then prepared a verbal FRAGO for a company operation. Based on the collective input of the board members, one student officer was selected for the Tactics Award. Recently, we changed the methodology. Now, candidates for the Tactics Award face each other in short tactical engagements fought on *TacOps*. A candidate may find himself required to attack or defend, using U.S. or other equipment, on terrain that is extremely varied. The most recent winner of the Tactics Award was undefeated as a U.S. tank company, an OPFOR reinforced motorized infantry company, and a reinforced U.S. recce troop from a RISTA squadron.

Looking Down the Road

The site license purchased by 16th Cavalry Regiment includes several upgrades in the software that should be complete by early summer of 2001. The major improvements include:

- The inclusion of the M1A2 SEP in the unit database;
- Significant refinement in the ability of the simulation to replicate urban terrain, to include both major cities and urban sprawl;
- The inclusion of various forces other than the Blue and the Red force, to replicate civilians, non-governmental organizations, criminals, refugees, etc.; and
- Expansion of the LAN capability to allow more than two work stations in a given fight.

Even with these upgrades, *TacOps* will not match the battlefield fidelity of our better known constructive and virtual simulations. Its ease of use, minimal computer requirements, and extreme portability, however, make *TacOps* a valuable training tool in the hands of innovative and aggressive trainers within our training institutions and our units.

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MAJ Wayne G. Cherry Jr. was commissioned a Distinguished Military Graduate from Mount Saint Mary's College, Md., in 1987. He served as tank platoon leader, scout platoon leader, adjutant, and Delta Company commander in 1-35 AR, Erlangen, Germany. Following Desert Storm, he was assistant S3, 1ATB, Ft. Knox, Ky. After AOAC, he served as S3 air and commander of Charlie Company and HHC/3-69 AR, 24th ID (M), Ft. Stewart, Ga. Additional assignments include observer controller at the NTC, Ft. Irwin, Calif; AOBC Division Chief, Ft. Knox, Ky.; and small group instructor, Armor Captains Career Course. MAJ Cherry is currently the Nomad Troop Commander for ACCC.